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THE AMERICAN PSYCHOLOGIST

The Professional Journal of the American Psychological Association, Inc.

Volume 5

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Managing Editor: Helen M. Wolfle

Consulting Editors: Theodore M. Newcomb, Robert R. Sears, and Ruth S. Tolman

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A SURVEY OF UNDERGRADUATE PSYCHOLOGY COURSES IN AMERICAN COLLEGES AND UNIVERSITIES

FILLMORE H. SANFORD

Haverford College

AND

EDWIN A. FLEISHMAN

University of Maryland

THERE seems to be in existence no complete evidence as to just what constitutes undergraduate psychology in America. The tendency, probably typical of most psychologists and of most people concerned with psychology, is to think of American psychology in terms of one's own limited experience with it. The psychologist familiar only with psychology as developed in one or two Eastern universities is likely to conceive of psychology in a way considerably different from the conception held by psychologists in a Midwestern State University or in a West Coast Junior College. These same differences in the projection of personal experience will probably characterize publishers' representatives, presidents of the American Psychological Association, college administrators, and any others who are in some way connected with the field of psychology.

The survey reported here was an attempt to achieve a statistical definition of undergraduate psychology in the United States.¹ In 1938 Henry² made an attempt to find out the facts regarding undergraduate courses in psychology, but these data are now many years old. In a discipline changing as rapidly as is psychology, figures of such vintage cannot be of more than historical interest. Secondly, Henry studied only colleges of liberal arts. What is happening to psychology in junior colleges, teachers' colleges, professional schools, technical schools, and universities must also be included in reaching a statistical definition of modern American psychology. In the third place, there is reason to believe that Henry's data were not based on an adequate sample of even the restricted population of liberal arts colleges.

¹ This study is a revision of a part of an unpublished survey of undergraduate psychology completed by Fillmore H. Sanford and Stuart H. Britt in early 1946.

² Henry, E. R. A survey of courses in psychology offered by undergraduate colleges of liberal arts. *Psychol. Bull.*, 1938, 35, 430-435.

THE CATALOGUE ANALYSIS

The present analysis was far more comprehensive. The attempt was made to determine facts pertaining to the psychological curricula in *all* institutions of higher learning in the country. This entailed the examination of the catalogues of these institutions.

The sample. The first need of such a study was the establishment of a representative sample of schools from which generalizations could be made with a relatively high degree of confidence. Happily, it was found, such a sample already existed. The Research and Statistical Service of the United States Office of Education had prepared a sample of 330 of the 1,778 higher educational institutions in the United States as recently as September 23, 1947.

The schools in the sample were selected by stratified-random sampling. The schools were first classified by type into eight major groups. Table 1 presents the total number of institutions within each group found in the general population (N) and the number of schools sampled from each group (n).

TABLE 1

The number of institutions of each type in the United States and the number sampled from each type

Type of Institution	N	n
All Institutions.....	1,778	330
Complex Universities.....	132	46
Technical Schools.....	36	18
Theological Seminaries.....	108	28
Other Professional Schools.....	144	36
Colleges of Arts and Sciences.....	577	55
Teachers Colleges and Normal Schools....	201	44
Junior Colleges.....	473	79
Negro Institutions.....	107	24

Within each type, the schools were stratified as to enrollment, and selected randomly. The sam-

ple includes schools from every part of the country. The proper ratio of coeducational institutions, all-men schools, and all-women schools are represented, as well as schools of the various religious denominations. There are schools with more than 25,000 students included and some with less than 50.

A word or two explaining the types of institutions under each classification is in order. The *Complex University* category is self-explanatory. There is included the institutions of many departments. Under *Technical Schools* are found representatives of engineering, mining, industry, and the "polytechnic" institutes. The *Theological Seminary* classification includes the representation of Lutheran, Catholic, Jewish, Baptist, Presbyterian, Evangelist, and other faiths. The *Professional Schools* are quite diverse. For example, they include art schools, optometry schools, music conservatories, schools teaching only medicine or dentistry, law schools, pharmacy schools, military schools, and forestry schools. The *Colleges of Arts and Sciences* classification refers to smaller universities and colleges having facilities for only arts and science curricula and to "liberal arts" schools.

As to the *Negro Institutions*, they had been placed in a separate category for the original purposes of the sample. It may be argued that these schools should also be randomized within the other classifications. However, under the present grouping some interesting comparisons may be drawn. In this category Negro schools of all types were included—universities, normal schools, technical schools, junior colleges, and so on.

Procedure. In order to find out what courses are offered the undergraduate in psychology in these schools, the catalogues issued by them were investigated.³ The facilities of the Enoch Pratt Library in Baltimore, and the Office of Education Library and Library of Congress in Washington were utilized in obtaining the catalogues. A debt of gratitude is owed the librarians in these places for their aid in searching out the catalogues of even the smallest, most remote school in the sample.

In recording the course offerings listed in the catalogues of the 330 schools in the sample, consistency was desirable. Certain "ground rules" for

the study were decided upon for the classification of the various courses.

The catalogues themselves were in practically all cases the 1947-48 editions. In the few cases where these were not obtainable, the latest catalogue available was used. Only one was as far back as 1945-46. The courses recorded were all those appearing under the psychology section of the catalogue under both "for undergraduates" and "for advanced undergraduates and graduates." Purely graduate seminars and courses are not listed in this study. The catalogue was then further explored in order to find courses given in other departments which could be considered as belonging also to the field of psychology. Education departments, sociology, business administration, philosophy, and religion departments often included pertinent courses. In many schools of the smaller or highly specialized variety, all the courses in psychology were under other departments.

The title of the course alone is what determined its listing, although the description of the course, if extensive enough, received some consideration. The listing "tests and measurements" includes those courses entitled just that and appearing in the psychology section of the catalogue. The listing "tests and measurements, educational" includes those found in education departments and those courses termed "mental tests" and "intelligence and achievement tests." The courses "research" and "problems" refer to those courses in which the undergraduate is allowed to work independently on particular problems. These are not courses designed as classroom work in which the student is taught methods of research and handling of various research problems. Such courses in experimental design and research methods, the subsequent analysis revealed, are all too few.

There are of course certain limitations in tabulating course offerings from catalogues. For one thing, course names are often deceptive. What actually goes on behind some of the titles may often defy speculation. Another limitation is the fact that all the course offerings in the catalogues are not always actually offered during that year.

After all the data were collected and summarized in terms of frequencies, these were converted to percentages, from which it is believed valid generalizations may be made to the total population and to the particular populations of colleges from which the sample was drawn.

³ The analysis of the catalogues was completed in the summer of 1948.

TABLE 2

The percentage of American institutions of higher learning offering various psychology courses

Course in Psychology	Percentage of Schools Listing That Course
Introductory, total.....	78.2%
Introductory, 3-hr. course.....	75.2
Introductory, 6-hr. course.....	3.0
Educational.....	43.0
Social.....	38.5
Child.....	37.9
Abnormal.....	28.5
Applied.....	27.6
Adolescent.....	26.1
Tests & measurements, educational.....	22.7
Experimental.....	21.2
Mental hygiene.....	20.9
Statistics.....	18.8
Personality.....	18.2
Tests & measurements.....	18.2
Systems & schools.....	13.9
Industrial.....	10.3
Clinical.....	10.0
Personnel.....	10.0
Physiological.....	10.0
History.....	8.8
Research.....	8.8
Problems.....	8.5
Learning.....	7.9
General, advanced.....	7.6
Child, exceptional.....	7.3
Religion, psychology of.....	7.3
Adjustment.....	7.0
Experimental, advanced.....	6.7
Child development.....	6.1
Tests & measurements, special.....	6.1
Individual differences.....	5.8
Tests, individual.....	5.5
Educational, advanced.....	5.2
Comparative.....	4.8
Child & adolescent.....	4.5
Educational, primary grades.....	4.5
Business.....	4.2
Guidance.....	4.2
Business & industry.....	3.9
Laboratory psychology, introductory.....	3.6
Student problems.....	3.6
Genetic.....	3.3
Motivation.....	3.3
Speech, psychology of.....	3.3
Clinical, advanced.....	3.0
Educational, secondary grades.....	3.0
Fields.....	3.0
Reading, remedial.....	3.0
Human growth & development.....	2.7
Marriage & the family.....	2.7
Statistics, advanced.....	2.7

TABLE 2 (Continued)

Course in Psychology	Percentage of Schools Listing That Course
Tests & measurements, advanced.....	2.7
Child, advanced.....	2.4
Family relations.....	2.4
Philosophical (Catholic).....	2.4
Reading disabilities.....	2.4
Advertising.....	2.1
Child, problem.....	2.1
Counseling.....	2.1
Developmental.....	2.1
Reading, psychology of.....	2.1
Teaching, psychology of.....	2.1
Test construction.....	2.1
Tests, projective.....	2.1
Abnormal, advanced.....	1.8
Advertising & selling.....	1.8
Child, pre-school.....	1.8
Guidance, child.....	1.8
Guidance, vocational & educational.....	1.8
Human behavior, foundations of.....	1.8
Music, psychology of.....	1.8
Nursing, psychology of.....	1.8
Occupational information.....	1.8
Public opinion.....	1.8
Rational (Catholic).....	1.8
Sensory.....	1.8
Student personnel.....	1.8
Adjustment, personal.....	1.5
Animal.....	1.5
Child, backward.....	1.5
Child, elementary school.....	1.5
Christianity & psychology.....	1.5
Feelings & emotions.....	1.5
Industrial relations.....	1.5
Social, special areas.....	1.5
Tests, group.....	1.5
Vocational.....	1.5
Child, mentally deficient.....	1.2
Counseling & guidance.....	1.2
Dynamic.....	1.2
Educational, experimental.....	1.2
Educational, orientation in.....	1.2
Employment.....	1.2
Legal.....	1.2
Motivation & emotions.....	1.2
Perception.....	1.2
Personal development.....	1.2
Personal problems.....	1.2
Psychiatry.....	1.2
Psychopathology.....	1.2
Psychotherapy.....	1.2
Salesmanship.....	1.2
Social advanced.....	1.2
Speech correction.....	1.2
Adjustment, personal & social.....	.9

TABLE 2 (Continued)

Course in Psychology	Percentage of Schools Listing That Course
Aesthetic.....	.9
Counseling & psychotherapy.....	.9
Dynamics of human behavior.....	.9
Emotions.....	.9
Group dynamics.....	.9
Human relations.....	.9
Language.....	.9
Leadership.....	.9
Military.....	.9
Neural basis of behavior.....	.9
Personality development & mental hygiene.....	.9
Speech pathology.....	.9
Tabulating machines.....	.9

RESULTS

The total number of separate courses listed by the schools in the sample was 261. Table 2 lists all of these that occurred more than twice. Were the analysis made on the catalogues of all 1,778 institutions of higher learning, the heterogeneity of course listings would be, of course, even greater.

Of course, if it were possible to classify these psychology courses by content rather than by name, much of the heterogeneity here would turn out to be merely a problem of semantics. And again, when we consider the frequency with which certain courses are offered, it seems increasingly clear that the vast majority of the courses in undergraduate psychology appear in relatively few fields. Edu-

TABLE 3

Percentage of schools of each type of institution offering each of the 30 most frequently offered courses

Course	Universities	Arts & Science	Technical	Theological	Professional	Teachers'	Junior Colleges	Negro	Combined Universities and A & S
Introductory.....	91.1	96.5	77.8	35.7	38.9	74.9	88.9	91.7	94.1
Educational.....	30.4	71.0	16.7	14.3	16.7	79.5	45.7	79.2	52.5
Social.....	82.5	87.4	27.8	7.2	5.6	38.6	14.0	45.9	79.3
Child.....	47.7	56.4	22.2	7.1	2.8	54.5	36.8	50.0	52.5
Abnormal.....	69.4	61.9	11.1	7.1	8.3	25.0	7.6	20.9	64.4
Applied.....	43.4	41.9	27.8	3.6	8.3	20.4	29.2	29.2	42.6
Adolescent.....	28.2	58.2	11.1	3.6	2.8	47.7	6.4	45.9	44.6
Tests & meas., educ.....	26.0	45.5	11.1	—	—	59.0	1.3	33.4	36.6
Experimental.....	69.4	47.3	11.1	3.6	—	6.8	1.3	20.9	57.4
Mental hygiene.....	28.2	45.5	16.7	7.2	2.8	22.7	10.2	29.2	37.6
Statistics.....	58.6	32.8	16.7	3.6	—	13.6	5.1	12.5	44.6
Personality.....	56.4	23.7	16.7	—	2.8	11.4	8.9	20.9	38.6
Tests & meas.....	54.3	29.1	5.6	3.6	2.8	13.6	5.1	29.2	40.6
Systems & schools.....	49.9	27.3	—	3.6	—	4.5	1.3	12.5	37.6
Industrial.....	47.7	12.7	22.2	—	—	—	1.3	—	28.7
Clinical.....	36.9	14.6	—	3.6	2.8	13.6	—	4.2	24.8
Personnel.....	39.1	10.9	11.1	3.6	2.8	2.3	3.8	—	23.7
Physiological.....	56.4	9.1	5.6	—	—	—	—	—	30.7
History.....	45.6	7.3	11.1	—	—	9.1	1.3	4.2	24.8
Research.....	47.7	7.3	5.6	—	—	6.8	—	—	25.7
Problems.....	28.2	20.0	—	—	—	9.1	—	4.2	23.8
Learning.....	41.2	5.5	—	—	—	6.8	—	4.2	21.8
General, advanced.....	26.0	12.7	—	—	—	13.6	—	—	18.8
Child, exceptional.....	15.2	1.8	—	—	—	29.5	—	12.5	7.9
Religion, psych.....	10.9	10.9	—	25.0	19.5	4.5	—	16.7	10.9
Adjustment.....	10.9	9.1	—	—	—	9.1	10.2	4.2	9.9
Experimental, adv.....	26.0	16.4	5.6	—	—	—	—	—	19.8
Child development.....	4.3	3.6	11.1	—	—	29.5	1.3	—	4.0
Tests & meas., special.....	13.1	3.6	—	—	2.8	9.1	2.5	20.9	7.9
Individual differences.....	32.6	1.8	5.6	—	—	4.5	—	—	15.8

TABLE 4

The distribution of courses in the various areas of psychology

Area	Total Different Courses	Total Listings in Sample	Estimated Number of Listings in U. S.	Percentage of Total Listings
Traditional-Academic.....	33	319	1,723	12.5%
Tests and Measurements.....	7	126	680	4.9
Clinical-Guidance.....	30	131	707	5.1
Business-Industrial.....	23	133	718	5.2
Social.....	21	168	907	6.7
Educational.....	13	296	1,598	11.8
Child and Adolescent.....	18	336	1,814	13.3
General Psychology of the Individual.....	43	368	1,987	14.6
Applied Psychology and miscellaneous applied courses.....	23	148	799	5.8
Introductory.....	1	258	1,393	10.1
Statistics, Research Methods and Problems Courses.....	5	142	766	5.4
Others.....	44	121	653	4.6
Total.....	261	2,546	13,745	

cational psychology, for example, is offered by 43.0% of the colleges as compared with 1.2% offering either legal psychology, employment psychology, motivation and emotions, or psychopathology. And in terms of enrollment, the more common courses probably tend to be the most populous. The analysis shows that 1,390 (78.2%) schools of higher education offer introductory psychology. A very large majority (1,337) of the introductory courses are listed as 3 credit hours or less.

Table 3 presents data on the type of institution offering the frequently listed courses. The table indicates, for example, that abnormal psychology is offered by 69.4% of the universities, 11.1% of the technical schools, 8.3% of professional schools, 25.0% of teachers' colleges, and so on. Similar figures are presented for each of the 30 most frequently offered courses for each of the eight types of institutions. A separate category has been included which shows the percentage of all the arts and science colleges and universities offering each course. These are the schools granting degrees in psychology and they are the schools which largely reflect the trend in the field.

Table 4 presents data on the concentration of courses in the various general areas of modern psychology. The procedure employed here was simply

to group the separate courses listed in Table 2 into general categories and add up the frequency of listings within each area. The table gives the number of different courses (the variety of courses) offered in each area, the total number of listings found in the sample in each area, and the estimated total in the total population of schools extrapolated from the sample data. The last column shows the percentage of all the courses offered that are represented by each area. In other words, of all the courses offered the undergraduate in psychology, 12.5% of them are in the *Traditional-Academic* area, 4.9% are in the area of *Tests and Measurements*, 6.7% are courses in the *Social* area, and so on.

A word is in order concerning some of the classifications used. The *Traditional-Academic* area includes such courses as experimental, advanced general, history, systems, perception, conditioning, learning, etc. Under the heading of *General Psychology of the Individual* fall courses such as personality, mental hygiene, abnormal psychology, individual differences, leadership, psychology of adjustment, and personal problems. It is possible, of course, to quarrel with the classification. However, any reader may construct his own classification from the data presented in Table 2.

Received September 18, 1949

TESTING, MANAGEMENT AND REACTIONS OF FOREIGN WORKERS IN GERMANY DURING WORLD WAR II

H. L. ANSBACHER

University of Vermont

INTRODUCTION

Purpose of the paper and acknowledgments. During World War II the German economy was maintained largely by the forced employment of from 5 to 7 million foreign workers, exclusive of prisoners of war. Testing of these foreigners has been mentioned in the American psychological literature twice before (4, p. 607; 11, p. 158); it was treated in several German papers (10, 20, 25); and it was referred to in the comprehensive study by Fried for the International Labor Office (13, pp. 142 & 240), the basic text for the general field with which we are concerned. Some indications regarding industrial relations are also to be found in the Fried report. Attitudes of foreign workers have been studied and reported by the U. S. Strategic Bombing Survey (28). But up to now these matters of interest to psychologists have not been discussed systematically. It is the purpose of the present paper to do just this, by bringing together material reported, sometimes incidentally, in other studies and supplementing it with new material.

This study had its origin in the Fall of 1945 when the author participated in a U. S. Naval mission to Germany for the study of German Naval Psychology (5). In the course of this mission contacts with a number of German applied psychologists were established, some of whom had been working in the field of foreign labor, and several pertinent documents were gathered. During 1948-1949 this information was supplemented by an extensive correspondence.

The author wishes to express his special gratitude to Dr. Ernst Bornemann of the University of Münster without whose unfailing cooperation and continued interest the study could not have been made. The author is also greatly indebted to Reinhold Groening, Dortmund; Dr. Walter Jacobsen, Hamburg; Dr. Wilhelm Lejeune, Gütersloh, Westphalia; Prof. Dr. Joseph Mathieu, Aachen

Institute of Technology; Prof. Dr. August Vetter, University of Munich; and finally to Dr. Dan Lerner, Hoover Institute and Library, Stanford University.

The stereotype of "slave labor." The work of foreigners in Germany during the war has most often been described as "slave labor," a term which immediately gives rise to the picture of galley slaves or of a chain gang with all the ensuing inhumanity and indignity. This stereotype is severely jolted, however, when placement testing and other generally accepted principles of industrial management must be included in the picture.

The stereotype was given wide publicity by our wartime propaganda and subsequently received seeming confirmation from the Nürnberg trials. Evidence was produced that foreign labor was actually forced to work in Germany; that both the act of conscripting and the transportation to Germany were often atrocious; that official directives for treatment in Germany were inhuman, particularly at first and in reference to Eastern workers; and that severe mistreatment in Germany did occur (27, pp. 74-75). Official Nazi attitude at its worst is expressed in the often-quoted infamous speech of Himmler, chief of the SS, at the meeting of SS Generals on Oct. 4, 1943, in Posen where he stated, "Whether ten thousand Russian females fall down from exhaustion while digging an antitank ditch interests me only insofar as the antitank ditch for Germany is finished. . . . We must realize we have 6 to 7 million foreigners in Germany. . . . They are none of them dangerous so long as we take severe measures at the merest trifles" (27, p. 73).

Reading the Nürnberg evidence strongly incenses us and tends to make one accept the wartime stereotype as now definitely proven. But the purpose of the trials was only to prove guilt where it existed and not to conduct a complete survey nor to cite

instances of adequate treatment. The trials did not deny the existence of such treatment.

In any state of slavery, while its basic principle is inhuman and while slaves are usually procured and shipped under cruel conditions, once the system is established some owners will treat their slaves more humanely than others. Such differences in treatment were possible in Nazi Germany firstly because of "divergent trends in German labour policy" (13, pp. 195 ff.), one of which was toward humane treatment for increased production; and secondly, because German wartime administration was characterized "by a remarkable flexibility and decentralization in the actual application of its economic and labour policies" (13, p. 23) in spite of most thorough totalitarianism in all key positions. The report of the International Labor Office, from which these statements are taken and which was one of the documents introduced in the Nürnberg trials, continues: "Thus to quite a large extent the treatment that the foreign worker received depended on the attitude of the German employer" (13, p. 24). It is safe to say that many Germans and most industrial psychologists did not share Himmler's attitude. Furthermore, whereas Himmler's methods might be employed in the digging of ditches, they would not be applicable to work requiring skill and initiative, the type of work of greatest interest to the German war economy.

With these considerations we hope to have prepared the reader to accept the following, not as an attempt to whitewash the guilty, but as the presentation of a hitherto practically unknown aspect of a vast social phenomenon in which psychology played a noteworthy and ameliorative part.

THE TESTING OF FOREIGN WORKERS

The foreign workers arrived in Germany for the most part without school certificates or work papers, so that their own statements as to their qualifications would be the sole basis for placement. It was only logical that attempts would be made to test these completely unknown workers, since many German plants had been using psychological tests with their German employees, for whom all background information was available. Further, the use of placement tests was also strongly promoted by official quarters (13, p. 142).

The tests were largely selected from those already in use, a fair knowledge of which can be obtained from the handbook on practical psychology

edited by Ach (1), especially Hische's (15, 16) chapters, and from Moede's (23) work on aptitude testing. German methods were far more clinical and less objective than American ones and thus not well suited for mass testing. When the great influx of foreign workers made mass screening imperative, the Zehlendorf psychologists (see below) turned to the American Army tests of World War I for suggestive ideas (25, p. 208), yet even then did not develop a completely objective procedure.

Private industry. Some concerns which had previously used psychological testing and adapted these methods to use with foreigners are shown in the following list where the name of the psychologist in charge, insofar as it is known, is given in parentheses: Bayerische Motoren-Werke, Munich (Dr. Sigfried Gerathewohl); Dortmund-Hörder Hüttenverein (DHHV), Dortmund (Reinhold Groening); Heinkelkonzern, Rostock (Dr. Hellmuth Schmidt); Hösch A. G., Dortmund (Dr. Ernst Bornemann); I. G. Farbenwerke, Ludwigshafen; Junkers Werke, Dessau; Messerschmidt Werke, Augsburg; Rheinmetall-Borsig, Berlin (Prof. J. B. Rieffert); Heidenreich und Harbeck, Hamburg (Dr. Walter Jacobsen). Toward the end of the war a group of psychologists, headed by Lejeune and including Mathieu, separated themselves from the Zehlendorf Institute (see below) for political reasons and set up a private consulting agency for industry (8). How many concerns in all used their own methods with foreigners is not known. Regarding the numbers thus tested, we have only the following indications: at DHHV 12,000 foreigners (14); at the I. G. a similar number (17); at Heidenreich und Harbeck 1000 foreigners (18).

Zehlendorf program. Plants which for various reasons could otherwise not have tested foreigners were enabled to use an officially sponsored program, which was geared for simple group testing. The program was worked out by the *Institut für Arbeitspsychologie und Arbeitspädagogik* (Institute for Industrial Psychology and Industrial Training), known as the Zehlendorf Institute for its location in Berlin-Zehlendorf. The Institute was a section in the *Amt für Berufserziehung und Betriebsführung* (Office for Vocational Training and Industrial Management) of the German Labor Front (DAF). After 1943 the name was changed to *Amt für Leistungsertüchtigung, Berufserziehung und Betriebsführung* (Office for Increased Perform-

ance, Vocational Training and Industrial Management).

The Zehlendorf Institute was for the greater part of the war under the direction of Dr. Joseph Mathieu. Its selection program for foreign workers was worked out by Dr. Wilhelm Lejeune (9) and was published in considerable detail by Dr. Maria Schorn (25). The program was demonstrated and recommended to personnel men all over Germany for over two years in special four-day training courses. Between 30 and 40 such courses were given, each with about 40 participants (22), for the most part conducted by Lejeune (9). As a result, the program was used in nearly 1100 industries where it was administered to an estimated 400,000 workers, primarily Easterners, but also Italians, French, Belgians, etc. in groups of about 50 (21).

The program, the administration of which took three hours, consisted of eight tests: (1) ten small intelligence items patterned after the American Army tests of World War I and illustrated in Figure 1 together with the first page of the Army Alpha test to show the general similarity; (2) a test of analogies, sentence completion, differences, opposites and comprehension items; (3) an arithmetic test; (4-6) three paper form boards; (7) a mechanical comprehension test; (8) a version of the wire-bending test of manual ability, so popular in Germany since about 1917.

Soest program. To insure greater efficiency in the utilization of manpower the Minister for Armaments and War Production, Albert Speer, in October, 1943, created the office of the *Reichs-Arbeits-einsatzingenieur* (AEI) (Reich Manpower Engineer) who was assisted by 34 regional AEI's (4). Dr. Walther Moede was asked to work out a new test-battery for the Reich AEI (8) on which, however, we have no further information. Under the auspices of the regional AEI for Westfalen-Süd a new testing program was instituted in 1944 which indeed was more efficient than previous methods in two ways. (1) Whereas formerly the foreigners were assigned to a plant first, tested there, and then, if found unsuited, returned to their camp for re-assignment, they were now tested in the transit camp at Soest in Westphalia to avoid the necessity of such a wasteful procedure. (2) In addition to aptitude items, the program included trade knowledge and trade performance tests, all suitable for group administration. These trade tests had previ-

ously been worked out by Groening for use in the industry with which he was connected and had been published by Bornemann and Groening (10). Only small numbers were tested at Soest, however, due to the progressive deterioration of the war situation (14).

Rapport. Since the overwhelming majority of the subjects had been brought to Germany by force, particular stress had to be laid on the introductory talk preceding the tests, in order to establish at least a minimum of rapport. Groening reports that the following presentation proved successful: "Why do we ask you to take an aptitude test? In order to be able to employ each one of you at a job for which he is best suited. People differ widely in their abilities just as a work horse differs from a race horse. Any one who is clever with his hands will not be asked to do heavy labor. Any one who can think well and is conscientious at his work will be assigned to an appropriate job. Any one who has learned a trade can be employed in his own trade and may even have a chance to learn more. We test not only foreign workers but also Germans, as you may have noted yourself. Now, will you do as I show you. First, write your name and today's date on the sheet in front of you . . ." (14). The attitude of the subjects is described as having been interested, hopeful, curious or skeptical.

Jacobsen explained to his groups that "the purpose of the tests was only to find out how best to do justice to their wishes, interests and abilities. The intention was not to torture them with undesired jobs—on the contrary. Therefore they would first be asked to fill in a questionnaire about previous activities and interests. Questions such as *Do you prefer to work alone or in a group? Do you prefer to work very carefully or very fast?* showed that we wanted to take their likes and dislikes into consideration" (18). Jacobsen adds that this was actually carried out to the extent within his power.

The percentage of those who purposely did poorly on the tests was not high, according to Lejeune. Especially the Russian workers "were quite receptive to the meaning and purpose of the tests. In the first place, a large number knew similar procedures from home; secondly, the directions laid particular stress on making these people see the positive meaning of our endeavour" (21). Such a positive response finds a counterpart in American experience with German prisoners of war. When

attitude and opinion questionnaires were administered to them, even confirmed and antagonistic Nazis were generally cooperative, less than one per cent of the questionnaires were returned in unusable condition, and everything indicated that the tests were answered truthfully (3, pp. 2 & 8).

RESULTS FROM TESTING

Quantitative results of the precision and refinement to which we are accustomed are absent here, partly because of the chaotic conditions attending the German collapse, but more largely because of the outlook of German applied psychology. With its subjective orientation the outlook was less research-minded and more nearly that of the practitioner, and results are primarily in terms of cases, judgments and comments. An attempt to explain this point of view was made elsewhere (5, pp. 5-10). It would, however, be a mistake to dismiss all of German applied psychology on these grounds. Its widespread and continuous existence must be taken as some proof of its value. From about 1918 on, applied psychologists, often under the title of engineer, worked in the postal system, the railway system, the public employment service as vocational guidance counselors, as well as in numerous private industries, and later in the armed forces.

Validity. In the place of validity studies we can offer only a number of comments. "Validity correlations were not made," writes Jacobsen. "Immediate individual successes were much more important to us. Such a correlation was so obvious that nobody needed further proof" (18). Groening (14) writes that the institution of the Soest program was due to the proven success of the method in the selection of foreign workers in private industry; after the Soest program was installed, all employers asked for pre-tested workers. According to Mathieu, "Extensive success-control studies confirmed generally high agreement between rough-screening appraisal and later performance in the plant" (22). According to Schorn "From its own extensive practical experience in armament industries, the Institute can give the assurance that the selection of foreign workers according to its method shows the very greatest success" (25, p. 216).

Case material. The following examples from Groening (14) are cited as an indication of the kind of results achieved through testing. *Case No. 1.* A Russian farm hand from a collective farm showed above average intelligence, good mechanical

comprehension and above average manual ability. He was trained as a mechanic. *Case No. 2.* An old Russian in work clothes and wooden shoes did amazingly well on the arithmetic test, the mechanical drawing test and the test for electricians. It turned out that he had been a professor at the Institute of Technology of the University of Kiev. He was placed with an engineering office. *Case No. 3.* Among a group of 400 Polish women who had been put into a concentration camp for having participated in a Warsaw uprising and who had been shipped to the plant under SS-guards as mere numbers without names, one turned out to be a medical doctor. She became assistant to the concentration-camp physician, the only case in this group who did not ask to have the fact of her academic training kept secret once it had been brought to light. The others preferred to be assigned to factory jobs. For example, *case no. 4*, another young woman among this group was found to be a psychologist herself, assistant at the University of Warsaw, but pleaded not to be disclosed. She was trained to become a crane operator, work which she did well and enjoyed. Groening kept these individuals' confidences and did not force them into work of their more highly skilled training.

National differences in abilities. As mentioned before, the Zehlendorf program alone was administered to three to four hundred thousand subjects and was available in German, French, Italian, Polish, Russian, Ukrainian. Insofar as any of the information and any of the psychologists concerned survived the German debacle the results of such extensive international testing should have yielded a considerable body of comparative data regarding European nationals. But unfortunately, due to the lack of interest and training in research, we have hardly more than a few opinions, which we present as interesting conjectures. Groening (14) gives us a rank order of general ability for European nationals, based on his testing and other experience, as presented in Table 1.

The position of Italian men (Germany's one-time allies) on the lowest rank is confirmed by the only other psychologist who expressed an opinion about them. According to Jacobsen "the Italians as a group appeared outstandingly ungifted" (18).

How do these opinions compare with other knowledge on the subject? In four studies of immigrant groups in this country, quoted by Klineberg, Itali-

TABLE 1

Estimated rank order of general ability of European nationals based on testing and other experience, according to Groening (14)

Rank	Men	Women
1	French	Russian
2	Russian, German, Polish	Polish
3	Yugoslav	German
4	Dutch, Norwegian	French, Yugoslav
5	Italian	

ans always ranked lower than Germans. Klineberg's own famous study of 10-12 year old boys in their European home-setting admits that "some argument could at least be made . . . for a real superiority of the German sample . . . at least between the rural groups" over the Italian sample (19, p. 32). Only the work by Franzblau (12) would be in contradiction if, for the present purpose, we consider Danes as equal to Germans. She found no difference in intelligence between Danish and Italian 12-year-old girls. If we grant to Franzblau's results the greatest validity from the point of view of innate national differences, the phenomenon still remains that unless great precautions of sampling are taken, Italians tend to appear at a disadvantage compared to Germans, and also to other European nationals. The German opinions about

foreign workers add another aspect to this phenomenon.

Regarding Russians, earlier American studies with immigrant groups also showed considerable intellectual inferiority to Germans (2, pp. 518 & 524). However, these findings are emphatically contradicted by the opinions of German psychologists. Nazi propaganda of the Slavic *Untermensch* notwithstanding—or possibly even as a reaction against such propaganda—the psychologists stress that the Eastern workers were certainly not inferior to the Germans (14, 21, 26). Particularly did the Easterners show great mechanical aptitude although they displayed little interest in the care of machinery while on the job, and often appeared lethargic (22).

In Table 2 we present the classification for industrial employment of seven groups of Eastern workers by the Zehlendorf program. The German distribution, although not given, is stated to follow the normal curve. Regarding the small extent to which the Eastern distributions compare unfavorably with the German, Lejeune reminds us that the younger members of the intellectual class were largely the most firmly convinced Bolsheviks and that therefore the most intelligent individuals may have been particularly prone to uncooperative test behavior (21).

The difference between the earlier American and the present German rankings of Russians is accompanied by an enormous difference in the educational backgrounds of the two populations and most easily explained by it. The American immigrants came from Czarist Russia where, according to various estimates two-thirds of the population were illiterate, whereas among the foreign workers in Germany illiteracy was small—only 2-5 per cent among urban males, although higher among women and rural groups (21, 22). Lejeune repeatedly points to the great desire for education and learning among the Russians. He also states that "the school apparently means *everything* in Bolshevik Russia." First, of course, comes indoctrination, but such procedure does not preclude the development of alertness and the acquisition of knowledge, even though these remain in the service of the doctrine (21).

TABLE 2

Classification for industrial employment of 7 groups of Eastern workers by the Zehlendorf program; all figures supplied by Mathieu (22) except those for Group VII which are from Lejeune (21)

Classification	Eastern Groups (Percentages)						
	I	II	III	IV	V	VI	VII
very well suited	4.7	11.0	9.4	2.7	9.6	25	80
well suited	19.1	21.0	18.3	9.3	13.2		
average	43.5	39.0	42.4	48.5	60.2	61	20
conditionally suited	21.1	23.0	23.0	26.2	15.8	14	
unsuited	11.6	6.0	6.9	13.3	1.2		

Description of samples

- Group I: 750 Eastern workers
- Group II: 800 male Eastern workers
- Group III: 1100 Eastern workers
- Group IV: 200 female Eastern workers
- Group V: male Eastern workers under 18 yrs.; number not stated
- Group VI: 220 rural Eastern workers
- Group VII: 180 skilled metal workers from Charkow

MANAGEMENT

In the effort to increase production, proper placement was only one factor. Other industrial man-

agement principles were also included, as presented in the following.

Supervision. During the war at least one German industry, the I. G. Farbenwerke, Ludwigshafen, instituted an exemplary supervisors' training program in human relations, which was made the object of a special American postwar study (30). Since a large percentage of the workers were foreigners, the program necessarily included their supervision as well, a fact which has not been reported heretofore. The training in dealing with foreigners consisted essentially in the attempt to replace the usual prejudices against foreigners by an appreciation of them as individuals in their own right. We quote from Hoffmann of the I. G. personnel department. "In detailed circulars to all departments differences in national customs were discussed. Essentially different attitudes toward work among southern Europeans and eastern Europeans were thoroughly explained. Correct behavior was unconditionally demanded of all supervisory personnel and its necessity explained on the basis of particular sensitivity on the part of foreigners and their distrust even toward honest intentions. In the supervisor training courses at the Kohlhof . . . behavior toward foreign workers was a subject of thorough discussion. With these measures it was possible to create an atmosphere of confidence and mutual respect between German supervisors and foreign workers" (17, pp. 6-7).

Another approach to supervisors of foreign workers was made in 1943 by the *Arbeitswissenschaftliches Institut* (Work Research Institute) of the German Labor Front. Supervisors were instructed in the use of rating sheets to obtain a measure of performance, but also to discover typical interests and abilities of the various foreign groups. The ratings were always in comparison with the average German worker such as "(1) much better than, (2) somewhat better than, (3) as good as, (4) somewhat worse than, (5) much worse than the average German worker." The very existence of such categories required talks to supervisors which ran counter to the Nazi notion of the Slavic *Untermensch*. Such talks were given by Jacobsen in numerous plants throughout Germany and Austria, and he estimates that as a result 25-50,000 Eastern workers were rated (18).

Finally, the Zehlendorf Institute issued suggestions for the supervision of foreigners, the purpose of which was to replace "robust" treatment with

humane viewpoints. Supervisors of Eastern workers should maintain a thoroughly benevolent attitude at all times; should be intellectually superior to the workers; should themselves have a thorough knowledge of the job; should be just, incorruptible and decent; and should at the same time keep their distance (22). In a pamphlet published in the Spring of 1944 Lejeune makes the same points, adding the ability to establish rapport as a further requirement for the supervisor. "Rapport can best be established by the presence of sincere social feeling . . . the right measure of a feeling of co-responsibility for the other man. This holds with regard to the production of the foreign worker as well as the satisfaction of his justified needs" (21a).

All these endeavors are rather the opposite of the Nazi master-race idea and in spirit much like the section on how to get along with foreign races and peoples in "Psychology for the Fighting Man" (7, pp. 397-412). Thus we are not surprised to learn that the psychologists mentioned here ran into difficulties with Nazi Party officials; more surprising is the fact that they were able somehow to carry out their activities in spite of these difficulties. For example, Lejeune was forbidden by the Party to work for the Zehlendorf Institute, yet was enabled to do so through Mathieu (21). Two of the I. G. psychologists, Vetter and Zeise, had previously been dismissed from positions of greater honor because of affiliations which were disapproved by the Nazis (9), and Zeise was denounced to the Gestapo for his activities in the I. G. (29). Jacobsen had for many years been connected with resistance movements (18).

Training and promotion. The entire purpose of the selection programs was to discover workers who either had a skilled trade or could be trained for one. For the training of Russians the Zehlendorf Institute found that instructions should consist primarily of actual demonstrations and only secondarily of verbal-conceptual teaching. Through the learning-by-doing method Russians caught on very rapidly (22). The I. G. Farbenwerke trained mechanics, welders, electricians in vestibule-schools with the aid of interpreters (17). Groening reports that young Russians who had the ability received regular apprentice training (14).

The training of foreigners in Germany had actually taken on vast proportions. The International Labor Office quotes a German business leader who stated at the end of 1942 "that Germany had by

that time trained and adjusted 'hundreds of thousands of specialised European workers.' He repeated, early in 1943, that Germany had, to a large extent, become the 'apprentice workshop of Europe.' This policy was continued in 1943 and was accentuated in 1944" (13, p. 240). In 1944, 600 to 800 special training groups of about 20 foreign workers were being started every month. The International Labor Office report concludes: "The magnitude and the novel character of the scheme make it difficult to predict its ultimate effects in the post-war era. But it seems that an important result, unintended by the Third Reich, will be an increase in the proportion of skilled and semi-skilled workers, particularly among the less industrialised European nations" (13, p. 242).

Change from unskilled to skilled work meant promotion in status and pay, and thus we hear of a strong trend among foreign agricultural workers to obtain transfers to jobs in industry where these opportunities existed, a trend which increased throughout the war and incurred lessening official opposition as the shortage of industrial labor increased (13, pp. 242-243). At Rheinmetall-Borsig, Berlin-Tegel, German unskilled workers complained that foreign workers were given the opportunity to advance to positions of skilled work and better pay through selection tests. In consequence the same tests were then given to the German unskilled workers as well (22).

At the I. G. Farbenwerke the main obstacle to promotion of foreigners to supervisory positions was the language difficulty. But in many cases foreign supervisors were assigned to men of the same nationality. "In three cases entire divisions were handed over to French personnel from the chemist in charge, down to supervisors and workers. The results fully came up to expectations" (17).

Other morale factors. Most of the concrete examples here again refer to I. G. Farbenwerke, Ludwigshafen. French workers for years received a daily ration of wine to which they were accustomed at home and in the French army. A part of the wages was regularly sent to the families at home. Physicians of the respective nationalities took care of the various groups, and similarly clergymen of the different nationalities held services for the many denominations. A group of 100 Mohammedans on their most sacred holiday were taken to a Mosque which happened to be some 13 miles

away. Nurseries were maintained for children of Russian women. All these arrangements of course deteriorated during the last year or two of the war (17).

In one large plant the foreigners had their own sports groups, and an orchestra and theatre group of considerable talent. Equipment, materials, and instruments were furnished by the management which also was represented at the performances (22). The German Labor Front also made limited attempts in this direction. For example, during 1943 it distributed instruments for 60 orchestras in the 22,000 camps housing foreign workers (13, p. 205). Among French escapees interviewed by the Bombing Survey one was employed in Germany as a cinema-operator for French workers, another as a hairdresser, a third as a jockey (28, II, p. 61).

By the summer of 1943 15 foreign-language newspapers for foreign workers had a combined circulation of 750,000. "All the papers, which were openly propagandist, contained articles about Germany and news from the home country, as well as official information on questions such as tax deductions, travelling possibilities, behavior in case of sickness, duties towards the employer, replies to queries, etc. The papers were produced by native editors, under German control and direction" (13, p. 204). Magazines and technical books were also published for foreign workers.

REACTIONS OF FOREIGN WORKERS

The preceding sections attempted to give a picture of the employment of foreign workers insofar as it is pertinent to psychology. The system which was intrinsically one of brutality did nevertheless not conform to a simple stereotype and was infinitely more complex. The question now remaining is: How did the foreign workers respond? We shall discuss this in terms of production and attitudes, and shall see that production was fair and that attitudes were less unfavorable towards the Germans as a whole than one might have expected from "slave labor." While this outcome cannot be related directly to the measures taken by psychologists, it is safe to assume that those measures contributed to it.

Reactions of foreign workers from the point of view of personal adjustment have been analyzed in a psychiatrically oriented article by Shils (26a). As a consequence of separation from their home communities, of fear of destruction and of uncer-

tainty about the future Shils found among the foreign workers "a widespread psychological regression, i.e., a collapse of adult norms and standards in speech, behavior and attitude, and a reversion to less mature patterns" (26a, p. 5). These findings are similar to those made wherever the effect of undue stress has been studied, such as in unemployment, life in prison and internment camps, etc. Shils' results are in agreement with ours where common ground is covered, showing the complexity of the situation. While the foreign workers hated their oppressors, genuine social relations with German civilians did develop. This was especially true in agriculture; but by 1944 German public opinion toward foreign workers had become definitely sympathetic in urban as well as in rural areas (26a, p. 8).

Production. The overall answer to the production question is that the system worked. German production was still at its peak in the summer of 1944 (28, I, p. 53), at a time when—according to a pilot study of the Bombing Survey—"in all but the most secret plants the percentage of foreign labor frequently exceeded 50 per cent" and many times reached 80 per cent (28, II, p. 53). Occasionally it reached 90 per cent (13, p. 12n). The I. G. Farbenwerke estimated the performance of a foreign worker on a job for which he was newly trained as about 70 per cent of that attained by a comparable German worker. On jobs requiring little skill, practically no difference was noted between foreigners and Germans (17). According to Groening the production record of a group of Polish women was as good, if not better, than that of German women (14). The Work Research Institute of the German Labor Front found in 1943 that the performance of some 400 Ukrainians and Russians primarily in the steel industry was in the majority of cases 70–80 per cent of German performance. The relative productivity of foreign women was generally better than that of men. Production varied with many factors. In a coal mine where inexperienced Easterners were employed the production was about 60 per cent of the German norm. Among one small group of nine Ukrainian girls in a camera plant average production was better than 90 per cent (6). In general, output was considered good where treatment was good, and while it was not up to regular German standards, it was nevertheless superior to the performance of the auxiliary German labor force

which had been pressed into service (21). "Continuous employment in Germany, even though under the most distressing conditions, did much to sustain the DP during his displacement period" (26a, p. 12). The German auxiliary workers, on the other hand, still had all their normal psychological supports and therefore did not find in their compulsory work their main satisfaction.

Attitudes. Had the entire foreign labor system corresponded to the stereotype, one could have expected total blind hatred on the part of the foreign workers against everybody and everything German. Such attitudes were indeed reported at that time. For example, Padover, after having spoken to liberated Russian workers in Western Germany, stated that "to them the only good Germans are dead Germans. . . . They . . . want to kill Germans" (24, p. 186). But treatment was not universally according to stereotype, and the attitude of the foreign workers was not universally one of blind hatred. Actually, an amazing degree of sympathy existed as we shall show. We shall present the picture as it appears to a number of German psychologists today, as a group of French escapees described it in the fall of 1944, and as it is revealed by an American questionnaire study of foreign workers immediately after their liberation in 1945.

1. *Accounts by German psychologists.* At the I. G. Farbenwerke the foreign workers brought no complaint regarding bad or inhuman treatment to the liberating Americans and no acts of revenge occurred (17). During the war the Russian camp at Ludwigshafen suffered heavily from air raids; yet no acts of sabotage or other unrest occurred (31). "Proof of the personal bravery and tenacity of foreigners exists in innumerable examples of the saving of human lives, in saving valuable plant property, and in keeping the plant going through dangerous moments during and after air raids. This is the best testimony that the foreign worker was treated up to the end in a way which took account of his individuality, valued his work, and respected him as a human being" (17). After the liberation a large percentage of Eastern workers would have preferred to stay in Germany rather than be transported to Russia (21). Some did manage to stay, forming the core of today's DP population. According to the American sociologist Shils, quoted above, over three quarters of a million Eastern workers refused to return. "It is not entirely due to political conviction or fear of death that many

of them refuse to go back. For many of them, life in Germany, even as disadvantaged foreign workers, was more rich and rewarding than their life in Eastern Europe had ever been" (26a, p. 15).

2. *Interviews with French escapees.* In a pilot study of the Bombing Survey, 37 French forced workers who had escaped from Germany were given detailed interviews in Paris during November and December, 1944 (28, II, 52-61). Some of these were members of the French underground resistance movement. These interviews show a good deal of understanding and identification with the German population in general and workers in particular, and give no indication of blind hatred. "Rigid and terrorizing police control of the laboring population provides the basic explanation of the maintenance of the German civilian war effort through 1943 and 1944" (28, II, 53). "As imported French labor played an increasingly important role in German industry, French workmen increasingly shared the standard experiences of the German civilian factory worker" (28, II, 52). "The majority of the French . . . testified to having personally received the disgruntled confidences of Germans by whose side they worked, or with whom they were intimate" (28, II, 54). After an air raid special rations were distributed "to all civilians in a bombed locality, including foreign workers" (28, II, p. 54). In issuing medical excuses from work for injuries received during air raids "the medical authorities were possibly even more rigorous with German workers than with foreigners" (28, II, p. 59). "The German evacuee, especially the factory employee, became increasingly reduced to the status of a foreign worker, and was often billeted in large jerry-built barrack camps near factories" (28, II, p. 60).

The inescapable impression from the above is that the line-up was not one of foreigners versus Germans, but one of the foreigners and the common Germans against the Nazi terror and war machine. The "slave workers" consisted of Germans as well as foreigners, with the coercion of the Germans offering, of course, an even more complex picture than that of the foreigners, as indicated elsewhere (4, p. 605). In any event the attitude of the French escapees was not one of blind hatred, but was differentiated and included a good deal of sympathy for their German fellow-sufferers.

3. *Questionnaire study.* The above preliminary findings were in essence confirmed quantitatively

by the subsequent questionnaire study of the Bombing Survey. (28, II, pp. 15-27) which, in its sample of over 2200, included Italians and Russians in addition to Frenchmen. The questionnaires were answered anonymously during May and June, 1945, in foreign worker camps throughout the American, British and French zones of Germany. Some of the results pertinent to the present study are given in Table 3.

TABLE 3
*Results from Bombing Survey questionnaire study
with foreign workers (Percentages)*

	French	Italian	Russian
1. Germans, with whom foreigners were friendly, said, even before the Normandy invasion, they feared Germany was going to lose the war (28, II, Table 21).	71	75	84
2. Police control given as reason for continued German participation in war effort (28, II, Table 37).	79	87	81
3. Observed resistance movements among foreign workers (28, II, p. 20).	56	34	86
4. Observed resistance movements among the Germans (28, II, Table 21).	35	16	57
5. Ratio of German to foreign resistance	62:100	47:100	66:100
Total number of respondents	801	436	998

The first item of Table 3 is perhaps the most revealing: 71-84 per cent of the foreign workers were on sufficiently friendly terms with a German for him to confide his defeatism roughly a year before the end of the war. From the second item we see how large a percentage of foreign workers saw the Germans functioning under coercion. According to item 3, resistance was observed among foreigners by 34-86 per cent, while according to item 4 resistance was observed among Germans by 16-57 per cent of the foreign workers. Item 5 shows that the ratio of resistance observed among Germans to that among foreigners ranged from 47:100 to 66:100. The foreign workers thus conceded resistance to Germans more than half as often as they claimed it for themselves. Such results are inconsistent with an attitude of blind hatred and

testify instead to a differentiated, insightful, and partly sympathetic attitude of the foreigners toward the Germans. Such a sympathetic attitude testifies to the fact that the situation of the foreign workers did not correspond to a simple stereotype of "slave labor."

SUMMARY AND CONCLUSIONS

During World War II millions of foreigners were compelled to work in Germany. At least ten per cent of these workers were given placement tests. The officially sponsored and most widely used testing program was in part patterned after the American Army tests of World War I. Nevertheless the approach was more clinical than psychometric, as everywhere in German psychology. Russian workers were found to equal German workers in general ability.

Instances are reported where specific instruction for supervisors in understanding and appreciation of the foreigners was sponsored both by official agencies and private industries. Further positive motivation was provided by training (on a large scale) and promotion of workers, as well as various morale measures.

The production of the foreigners was generally considered satisfactory, varying largely with treatment. Their attitudes were not as hostile toward everything German as one might have expected on the basis of Allied wartime information.

Perhaps the most noteworthy conclusion is that when and as psychology is employed, even within a totalitarian state and dealing with forced labor, it still is essentially the same psychology one would find in a voluntary situation within a free society, thus indicating that the same set of psychological principles holds universally. To the extent that such principles contradicted Nazi notions of human nature and could be practiced none the less, this gives support to the now growing realization that even a totalitarian state is far more complex than its stereotype. The relatively widespread existence of sympathetic attitudes among foreign workers would indicate that valid principles of human relations were practiced beyond the sphere of influence of professional psychology, in face-to-face contacts of individual Germans with individual foreigners.

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² Badische Anilin- & Soda-Fabrik is the original name of the I. G. Farbenwerke, Ludwigshafen, which was resumed after the dissolution of the chemical trust since the war.

ARE PSYCHOLOGISTS AFRAID OF THERAPY?

KEITH SWARD

Beverly Hills, California

As a psychologist in private practice, I have naturally followed with considerable interest the rise of clinical psychology as an applied art. After reading the latest report of the APA Committee on Training in Clinical Psychology, I feel that the future of this new development is in capable hands.

At the same time, I cannot escape having the feeling that psychologists by and large have not arrived as yet at anything like a clear formulation of their attitudes toward clinical psychology. Many of our current attitudes toward the clinical field are in my opinion needlessly and harmfully hesitant, apologetic, timorous and unrealistic. A good many psychologists in our university centers—how many I can't say—actually minimize or deprecate this new direction within the profession. These negative feelings are directed especially, I should say, at therapists in private practice. If I sense the situation correctly, a good many academic psychologists look upon psychotherapy either with indifference or apprehension or with a feeling that therapy, if it must exist at all, is one of the lesser concerns of graduate training in the field of clinical psychology.

Let me illustrate. A few academic people who are clinically oriented have been frank to tell me that they are sailing without a compass, that they have never stopped to formulate what they consider to be the proper aims of their efforts at graduate training. This indeterminate attitude is reflected in the minds of a large number of graduate students who are interested in therapy. In a recent issue of the *American Psychologist*, a responsible British author gave it as his opinion that psychotherapy is the exclusive province of the psychiatrist and that the clinical psychologist has no place whatsoever inside that domain. The APA Committee on Training in Clinical Psychology tells us that most American departments of psychology are opposed in principle to the private practice of clinical psychology. Some departments, the Committee reports, will not admit a student who intends to go into private practice. Of all the atti-

tudes which I loosely choose to regard as being "anti-therapy," the commonest in my opinion is the point of view that psychotherapy has its place as an object of graduate study or as an eventual post-graduate focus but that research and diagnosis come first. Seen in this light, therapy is admissible. But it comes limping after as a necessary evil, as a kind of after-thought, as a lesser thing which needs watching and is to be tolerated only so long as it remains subordinated to the "legitimate" and loftier ends of research and diagnosis.

I am forced to conclude, therefore, that we are somewhat at sea in our thinking about therapy and that some of our attitudes toward therapy are openly or covertly negative, to say the least. If I have read these feelings correctly, what explains them? To be sure, our university departments of psychology are feeling their way into a new situation. Anything so new and so complex as the setting up of professional standards of training for therapy must proceed slowly. It stands to reason that those psychologists and graduate students whose major interest lies in the theory and practice of psychotherapy must not expect too much, too soon. I also appreciate the need for growing slowly and soundly. Furthermore, I have great respect for those officers of the American Psychological Association and for those university spirits who are adequately dealing with this tremendous problem.

Nonetheless, I feel that psychologists must take stock of themselves in order to understand some of their timorous and negative attitudes toward psychotherapy. Before the looking glass I think we shall discover, among other things, that we minimize and underestimate the role of therapy because we fear it.

This fear has, as I see it, four separate variants. I should like to list each of these offshoots. Under the circumstances, my analysis can be little more than a mere enumeration.

In the first place, I feel that the tendency to assign an inferior or lesser place to therapy as such stems in part from the fact that we still suffer

from an overattachment to the tradition of mental testing. Since the new clinical orientation came into being, the psychological literature has simply teemed with tests and scales which purport to assess the personality as a whole or this or that facet of the neurotic personality. I am sure that this activity within the hive will produce something of lasting value. It already has.

If we are thinking of the cultivation of therapeutic skills, however, it might pay to face a number of realities which delimit the usefulness of tests in the clinical situation. These realities are as follows: For ninety to ninety-five per cent of his efforts—at least on the adult level—the therapist has no occasion for using tests or any other kindred diagnostic instruments. He relies on his clinical judgment. He must rely on his clinical judgment. Moreover, I can think of any number of therapeutic situations, for example, when a patient presents himself in a gravely depressed or anxiety-ridden state, in which the use of any formal psychological tests would add nothing to or would actually impede the clinical action that is called for. It is my further conviction that the final test of the success of any brand of therapy is now, and will always remain, a social one. That is, we must answer these questions: Is the subject making a go of life? Has he freed himself of his anxiety or conversion symptoms? Is he living productively? Has he learned to get along with others?

Again, I am not saying that tests have no place as diagnostic instruments or as research tools. But I do contend that if we hew too closely to the mental testing tradition in our clinical psychology, we will remain strangers to any real comprehension of the psychodynamics of growth, and the art and meaning of psychotherapy will elude us quite completely.

I come now to my second basic question about our seeming resistance to making the study of therapy one of our primary graduate objectives. Are there those among us who stress research and diagnosis in contradistinction to psychotherapy because these presumably favored processes, diagnosis and investigation, are ostensibly easier or more tangible in the doing than therapy? Therapy is dynamic. It does not lend itself to the categorizing or to the neat patterns which we have come to identify with a great deal of our research activity. The subject-matter of therapy is, likewise, dynamic.

The world of inner feelings is in a state of constant flux. It varies in an ever-changing relationship with outer social forces. This subject-matter does not stand still for the convenience of the old-style investigator who longs to pigeonhole and codify his material.

If I am right in suspecting that we have eschewed therapy to some extent because of its greater difficulty or because it is so intrinsically fluid and elusive, is it not likely that we will come to a standstill at a stage of development which psychiatry is now at the point of leaving? Psychiatry has long been addicted to classification. The run-of-mine psychiatrist has functioned for the same length of time as a mere diagnostician or as a Kraepelin who could tell the patient in one or another vocabulary what ailed him. These classifiers were, for the most part, unversed in the dynamics of movement or in the art of helping the patient to help himself. Today, however, the psychiatric picture is rapidly changing. Our departments of psychological medicine are coming over to the dynamic point of view, both in their therapy and in their theories of growth and personality. Is this, then, the hour for the psychologist to forego an interest in the psychodynamics of his subject—therapy included—in favor of a science of static measurement and classification, because the latter offers scientific data that are neater or simpler or more manageable?

I have a third query in mind. It is this: How much of our apparent indifference or over-cautiousness toward psychotherapy is a function of sheer remoteness from the problem? This possibility suggests itself every time I read or hear it said that research and diagnosis, rather than therapy, is the psychologist's proper sphere.

To my way of thinking, any attempt to dichotomize these ends or interests, placing therapy in one compartment of clinical psychology and research and diagnosis in another, is not only undesirable; it can't be done. Surely in the clinical field, therapy on the one hand and diagnosis or research on the other are complementary and inseparable. I, for one, cannot think of a single original worker in psychiatry or its sister sciences who has not been a close observer of troubled human beings in the process of accepting help. All the great innovators in this area—Freud, Rank, Adler, Sullivan, Ross, Fromm, and the rest—were mental healers. All were clinicians. All were steeped in therapy. Could it have been otherwise?

The art of psychotherapy should be stressed by our university departments of psychology both for its own sake and for the reason that clinical research cannot possibly find a deeper well-spring of inspiration. Where, outside of the therapeutic situation, is the psychologist in a better position to assess the compulsions of the hypertensive personality, the motivations of the sadist, the anxieties of the cardiac patient, or the inner conflicts of the person suffering from a psychogenic skin involvement? Who has a richer opportunity than the therapist to gauge the forces of health within the neurotic personality, to put to the test the validity of our theories of psychodynamics, or to learn first-hand the limits of our knowledge?

Is it not also true that from a pure research standpoint, therapy is the most important problem clinical psychology has? Our knowledge of the structure and origins of personality is far in advance of our knowledge of the art of helping people. The practicing psychiatrist or clinical psychologist falls down oftenest not in his failure to grasp the psychodynamics of the relationship or disorder he is up against, but rather in knowing where to go from there or in knowing how to help the patient solve his problems. Otto Rank was one of the first to foresee this predicament. Rank predicted that with a rise in the popular level of psychological sophistication, we would encounter more and more in the therapist's office the patient who arrives armed in advance with a pretty fair awareness of what ails him, even to the point of knowing a great deal about the dynamics of his own case, but nonetheless quite powerless to free himself from his problem. If the universities are interested in research, what problem promises greater rewards, what subject is richer in riddles, than therapy itself?

To put my point another way, I should say that the only psychologists who seriously insist on a separation of therapy from research and diagnosis must be psychologists who have never had much first-hand experience with therapy. These same psychologists probably doubt that therapy is even possible. They include, I am sure, those academic perfectionists who frequently remark, "Do we really know enough to attempt therapy at all at this time?"

I do not wish to deify empiricism or subjectivity when I express the conviction that all teachers and investigators of clinical psychology will be com-

pelled to send their roots down into the clinic. Clinical psychology cannot avoid becoming clinical. The "knowers" in this field will be participant-observers. We are dealing with feelings. Only participation in the helping relationship can give the masters of the art any real appreciation of the subject they profess to teach. Who can imagine a William Osler cut off from the source of his vitality, the clinic and the hospital bed! What was necessary for the growth of a great pioneer in internal medicine—an intimate union between therapy, research, and diagnosis—is certainly mandatory for the clinical psychologist.

Now to my fourth and final question about some of the motives which underlie our diffidence toward therapy and our seeming scorn for the private practice of therapy: Do we shy away from psychotherapy because we fear the reaction of the medical profession?

It will certainly not behoove us to ignore the relationship between psychology and medicine. At times, I feel, we have been guilty of doing just this. For example in one or another of our psychological journals, I have read with no little concern the recommendation that counselors or therapists—of the non-directive school, I believe—are free agents, that they may launch into therapy completely in the dark as to what ails the patient, somatically or psychologically. This advice, to my mind, is a counsel of irresponsibility. It implies that the lay analyst, if you will, can ignore all medical and psychiatric considerations. All I can say is that the therapist who acts on such advice is playing with fire; he will also invite ill will and retaliation on the part of both the American Medical Association and the general public.

Let me cite another example of psychologists refusing to face the problem of their correct inter-professional relationships. In this case a group of psychologists recently introduced into their state legislature an ambitious and far-reaching bill for the licensing of psychologists in private practice. The measure was dead before it reached the state capitol. It was killed by the state medical society. Any licensing bill of this character might have suffered a similar fate at this time. I can't say. But I think I know why it was that this particular measure was buried after its first reading. The sponsors of the bill were, for the most part, academic people of unquestioned integrity. But they overlooked two realities in the situation. They

drafted their measure *in vacuo* without making any real or sustained effort to court the aid or criticism of the medical profession. And the bill that was presented asked for something that the clinical psychologist will probably never get and has little reason to expect—the privilege of setting up an independent healing art without check or hindrance from medicine in general or psychiatry in particular. The sponsors of the measure were well-intentioned, I am sure. They were eager to give legal status to the trained psychologist as a qualified practitioner in his own right. In going about it the way they did, these same sponsors revealed a self-consciousness or a desire to overcome inferiority feelings of a sort that have long beset psychologists in their feelings toward the medical profession.

When we do get around to the point of facing our relationships with medical men, we will doubtless run into problems of an economic character. We will have a power situation on our hands. There are analysts and psychiatrists and numberless other practitioners of medicine who will frankly do what they can, legally or otherwise, to discourage or prevent competition from the psychologist.

On this ground particularly, psychology may be underestimating its own strength. It cannot be assumed that all medical men, especially those in the field of internal medicine, are altogether pleased with psychiatry and psychoanalysis as these arts are practiced today. I can only surmise the reasons for this state of dissatisfaction. Perhaps the average psychiatrist is still prone to diagnose an ailment and let it go at that. He probably still approaches his material, with or without electrotherapy, too mechanically. The psychiatrist of today may still be too insensitive to the dynamics of emotional states and either unprepared or unwilling to "sweat it out" with the patient. The analysts on the other hand are hardly meeting the existing need for psychotherapy. The typical analysis, as everyone knows, still lasts too long and costs too much, thus delimiting its availability, even when brilliantly successful, to a handful of patients who are well-to-do. I would suspect, finally, that the physician who is not a psychiatrist is none too impressed as a rule with the therapeutic results he sees with the patients whom he refers to any class of therapists—be they psychiatrists, analysts or psychologists.

In terms of economics alone, therefore, the practicing psychologist may not be as unwanted as he

sometimes seems to feel. Medicine in a sense is waiting for him. The unmet need for psychotherapy is there. It is illimitable, as any sophisticated practitioner of medicine well knows. From a scientific standpoint as well, competition from clinical psychology may turn out to be one of the healthiest things that ever happened to psychiatry and analysis. To be sure of his welcome by the medical fraternity, however, the psychologist who engages in psychotherapy must meet the need more adequately than it has been met to date, and he must be able and willing to acknowledge his own very real limitations.

The moment we try to define the proper scope of the psychologist in a therapeutic setting, we shall, of course, run into trouble. Here, I suppose, we have the most to learn and are least sure of ourselves. We have heard the questions, "Where does one draw the line between psychology and medicine?" "What are the functions of the psychiatrist as against those of the psychotherapist?" (I might note in passing that psychiatry itself has not precisely defined its own areas of maximum usefulness, for example, in relation to neurology or psychoanalysis.)

I am sure I cannot answer these questions. As a practicing psychologist, I know what kinds of cases I try as rapidly as possible to screen for psychiatric referral. It is partly a question of the depth of the presenting symptoms. Certainly the patient with psychotic symptoms requires immediate psychiatric care, not psychotherapy. One comes to recognize as properly psychiatric material those classes of cases, such as certain obsessive-compulsive types and certain psychopathic persons (of the sort described by D. K. Henderson in his little classic, *Psychopathic States*), all of which seem to defy any standard techniques of analysis or psychotherapy. No one questions the fact that the psychiatrist instead of the psychotherapist should be dealing with the epilepsies, the migraines, or any other neurological states. The responsible psychotherapist who is conscious of his limitations is also scrupulous in accepting for therapy no person who has not been adequately diagnosed by a physician in the field of internal medicine. Even this precaution is not entirely adequate for the full protection of the patient.

This problem of inter-professional relationships is, obviously, too big for any one therapist to settle privately. The issue requires intensive explora-

tion by the American Medical Association and the American Psychological Association. Such study will entail, no doubt, sustained experimental work on the part of clinical psychologists working closely with dynamically trained psychiatrists. We may discover in the end that no mental specialist, be he psychiatrist, analyst, social case worker or psychologist, should be permitted to work alone, and that no person who works in any of these fields can function at his best in the area where he belongs until clinical or team relationships become the rule rather than the exception in the treatment of neurotic or psychotic human states.

In the meantime the clinical psychologist in private practice must be discreet. If he does not police himself, others will police him. At this very moment, for example, it is illegal in the State of California for anyone but a licensed practitioner of medicine (unless he be otherwise licensed by law) to diagnose or "ascertain or establish any fact con-

cerning the physical, mental, or nervous condition of a patient." These words were written into the State medical code in 1949 for the purpose of outlawing quackery in the realm of psychotherapy. They have not been invoked as yet against any practicing psychologist with doctorate training. They can be used, however, to discipline or drive from practice the psychologist who fails to acknowledge and observe his professional limitations.

May I conclude by saying that the psychologist in private practice feels he has a function to perform, even though the exact boundaries of that function are as yet indistinct. He looks to the American Psychological Association and to the university departments of psychology for leadership. That leadership will not take us very far, at least in my opinion, until psychologists become less afraid of therapy.

Received October 17, 1949

Comment

The D.Ps.Sc. at McGill

To the Editor:

The very brief notice, in the November issue of the *American Psychologist*, of the new degrees offered by McGill University has apparently been misleading to a number of your readers, in view of some of the letters we have been receiving in this Department. I should like to make it clear that the D.Ps.Sc. degree will not be easier to get than a PhD, nor offered to students of inferior ability, and that there has been no essential change in policy in formally recognizing the existence of two kinds of aptitude in graduate students and two corresponding kinds of training (i.e., professional vs. research aptitudes and training).

McGill still offers no training in clinical psychology at the doctoral level; the D.Ps.Sc. degree is given for training in industrial psychology and educational and vocational guidance. A maximum of twelve students can be admitted each year for graduate work in psychology, and of these not more than half will be admitted to work beyond the Master's degree. Selection must still be as rigorous as possible, and the D.Ps.Sc. degree is meant for the student who *could* succeed in the PhD course as it is usually given, but who will benefit more by another kind of training.

The editorial condensation (of the statement as we had originally worded it) seems to have been most misleading in its reference to a thesis which "need not show aptitude for original, independent research." Our original statement referred to a "genuine" aptitude, and this statement was made clearer by saying that the candidate's problem might for example have been thought up by his research director. It should be obvious that this is no great departure from present PhD practice in other universities than McGill. In every graduate department there will be found students who have spent two and even three years in study with no excessive compulsion toward experimentation and who, having then passed their so-called preliminary examinations, make the round of instructors looking for a "problem." These students often have a scholarship and a critical ability that later demands the respect of their more research-minded colleagues. When one is dealing with such a student one may find it impossible to flunk him out, and the result is an elaborate farce of "original" research for the PhD.

The D.Ps.Sc. will require research of this order (which we still do not think shows a real aptitude for "original, independent research") but it will also require the student to demonstrate his capacity to carry out practical work at a professional level of competence.

We cannot encourage the interpretation by some of your readers that with the new degree we are offering a kind of second-class PhD. By providing a category for the student who is not really interested in research but who is otherwise as competent as the PhD student, we hope to be able to raise our standards of training in both directions.

D. O. HEBB
McGill University

Misuse of Small Sample Techniques

To the Editor:

During the recent convention of the Association in Denver I listened to a number of experimental papers that produced a strong negative reaction in me. I was impressed by the number of times an author made a statement similar to the following: "This mean is low (or high) because of the presence of a single deviant case." The N involved was invariably in the small sample range.

What is implied in such a statement? One cannot assume that the population from which the sample was drawn does not include unusual cases, since at least one is here on record. The experimentalist, in making this statement, does imply that the population includes a smaller proportion of such cases than the sample. This implication is not, however, the result of statistical reasoning. The population might equally well include a higher proportion than the sample. One reaches the conclusion that the experimentalist has other unreported, and presumably unreportable in any quantitative sense, data that lead him to his conclusion. In other words, a clinical judgment is involved.

Now I have no objection to clinical judgments per se. They should be made, however, by trained clinicians, in clinical settings, to meet clinical problems. The moral for experimental psychologists is to use larger N's, particularly when the shape or slope of a curve is involved. Clinical judgments have a place in experimental psychology only to the extent that they can be used as starting points for research. They have no place in the interpretation of research.

It is debatable, I believe, whether the popularization of Fisher's small sample techniques has constituted a help or a hindrance to the development of experimental psychology. (If any of my ex-students believe this statement to be a reversal of opinions expressed in classes ten years ago, they are right. It is.) Small sample techniques do not reduce sampling errors. They do enable one to estimate more precisely the limits

within which population values will be found. In most kinds of psychological research, these limits are relatively broad for statistics based on ten or twenty cases.

LOYD G. HUMPHREYS
Stanford University

The Standards ABEPP Uses

To the Editor:

The undersigned psychologists wish to offer what they hope are constructive comments concerning the present policies of the American Board of Examiners in Professional Psychology (ABEPP).

The main source of criticism of ABEPP has been the grandfather clause under which psychologists long in the field are certified without formal examination. Many of us had thought that under the grandfather clause *any* reputable psychologist identified for a long time with one of the special fields would be certified; that, in fact, the main function of the Board was to exclude charlatans and unethical practitioners. Apparently, however, ABEPP has not considered screening to be its main function. Instead, it has attempted—obviously with the expenditure of much time and labor—to separate the sheep from the goats. This objective is certainly commendable, but it is difficult to attain. It is hard to find a measuring rod for practice and experience applicable to people who for many years have done all kinds of things. Moreover, clinical, counseling and industrial psychology are broad and overlapping areas and it is often hard to tell a counselor from a clinician or even from an industrial adviser.

As one reads through the names of the diplomates, no clear pattern of training, competence or experience emerges in terms of which one can say clearly what constitutes diplomate status. Most of those certified are undoubtedly capable people, but it seems to us that various persons who have been denied certification are equally as competent. This conclusion is very disturbing when it is realized that the economic security of many psychologists is—or may be—closely tied up with their certification.

When the Board was constituted in 1946, the only stated requirement for grandfathers was five years of experience in the specialty for which certification was sought. Suppose that the Board before soliciting applications had drawn up a set of standards for each of the three specialties, and had submitted these to a panel of representative psychologists for criticism and suggestion. Publication in the *American Psychologist* of minimum criteria, as finally agreed upon, would have set a pattern for the diplomas which he who runs might read. Applicants who clearly did not fit under the

Board's rules would have been spared the embarrassment of rejection, saved \$25.00, and been advised of their particular areas of deficiency. Such a preliminary announcement would also have saved the Board much time and labor. Whether psychologists in general agreed with all of the criteria laid down is unimportant (it is too much to expect that *everyone* would agree) but at least potential candidates would have known where they stood.

We feel sure that ABEPP does not consider its present policies to be inflexible or necessarily final. Hence we are suggesting below three ways in which we believe the Board might improve its present procedures with respect to certification without examination.

(1) The immediate publication in the *American Psychologist*, say, of the general requirements for diplomas in clinical, counseling and industrial, as applied to grandfathers. Unless and until this is done, psychologists who have the task of making recommendations for positions within the three special areas must perforce proceed upon other evidence than the diploma, since they do not know for what the certificate stands.

(2) The setting up of an appeal agency to which any rejectee who wishes may submit his case. In referring appeal cases to an independent jury, the Board is not, in our opinion, shirking its responsibility. Rather, the existence of such an agency would serve to make explicit (a) the well-known fact that the grandfathers are hard to evaluate, and (b) the further important point that the rejection of an applicant is a matter not to be taken lightly.

(3) The improvement of the Board's public relations. Undoubtedly, ABEPP's public relations would be improved if candidates were made to feel that their applications were being reviewed with sympathetic personal attention; and that every effort was being made to find ways by which they could meet certification standards. Formal rejections without explanation and the failure to answer legitimate inquiries hardly serves to accomplish this end.

ABEPP has undertaken an important job for which its members deserve the gratitude of the APA. Our comments have been made in a spirit of constructive criticism, in the hope that they may suggest methods for improving procedures which have already demonstrated their worth.

ALBERT T. POFFENBERGER, *Columbia*

CLARENCE H. GRAHAM, *Columbia*

HENRY E. GARRETT, *Columbia*

CARNEY LANDIS, *Columbia*

LOUIS LONG, *College of the City of New York*

ANNE ANASTASI, *Fordham*



CALVIN P. STONE

Professor of Psychology, Stanford University

Editor, *Journal of Comparative and Physiological Psychology*

Across the Secretary's Desk

CHARACTERISTICS OF APPLICANTS FOR APA MEMBERSHIP

In October, the Board of Directors reviewed the applications of approximately 800 persons who wanted to become Associates of the APA. After the Board's decisions had been made, and in order to secure information on the characteristics of those elected and those rejected, Jane D. Hildreth tabulated a number of items of information about both groups.

TABLE 1

Occupations of applicants for APA membership

Occupation	Accepted		Rejected	
	No. ¹	Per cent	No. ¹	Per cent
Graduate student.....	276	40	26	18
University teacher.....	116	17	13	9
Counselor.....	85	12	43	29
Clinical.....	65	9	4	3
Research.....	39	6	2	1
School psychologist.....	32	5	7	5
Psychometrist.....	24	3	11	8
Private practice.....	12	2	7	5
Industrial.....	11	2	2	1
Miscellaneous.....	32	5	22	15
Unemployed.....	0	0	9	6
Total.....	692	101	146	100

¹ The totals exceed the number of cases because a few applicants were employed under two categories.

Table 1 shows what the applicants were doing at the time of application. The rejected candidates differed from the accepted ones in that fewer of them were in universities, either as students or teachers, fewer were engaged in clinical psychology or research, and more of them were counselors, psychometrists, employed in miscellaneous other occupations, or not employed at all. The largest difference was in the counseling group; 12 per cent of the successful and 29 per cent of the unsuccessful applicants were counselors.

Table 2 shows the highest degrees received by the applicants in both groups. The principal differences between the elected and rejected candidates were that the elected more frequently had their MA or PhD in psychology (62 per cent to 29 per cent) and less frequently took their graduate work

TABLE 2

Academic degrees of applicants for APA membership

Highest Degree	Accepted		Rejected	
	No.	Per cent	No.	Per cent
PhD in psychology.....	52	8	0	0
MA in psychology.....	352	54	40	29
EdD or PhD in other field..	45	7	22	16
MA in other field.....	81	12	46	34
Other graduate degree.....	2	—	5	4
No graduate degree.....	114	17	21	15
No degree or unknown.....	10	2	3	2
Totals.....	656	100	137	100

with a major in some other field (19 per cent to 54 per cent).

On the basis of all the information available in the application, we tried to make a guess as to whether or not each applicant was likely ever to receive a PhD degree in psychology. Of the elected candidates who did not already have a PhD degree, it seemed reasonably likely that 52 per cent would receive it at some time in the future. In only 15 per cent of the rejected group did we think a doctorate likely. In 31 per cent of the elected group we guessed that a doctor's degree would never be taken, while in 70 per cent of the rejected group that degree seemed unlikely to be secured.

Table 3 shows a tabulation of the number of semester hours of graduate work in psychology. The accepted applicants had a median number of

TABLE 3

Semester hours of graduate work in psychology of applicants for APA membership

Semester Hours	Accepted ¹	Rejected
over 60.....	22	1
51-60.....	33	1
41-50.....	19	6
31-40.....	19	24
21-30.....	25	32
11-20.....	1	44
1-10.....	0	14
none.....	1	4
unknown.....	11	11
Total.....	131	137
Median hours.....	47	21

¹ Sample of 131 of the 656 accepted applicants.

hours over twice as great as the rejected ones. Normally, the minimum acceptable amount is one year of graduate work which the Board interprets as 30 semester hours of psychology. However, they elected 27 applicants out of the sample tabulated who had less than that amount. Most of them were within a few hours of having 30 and came from schools where less than 30 semester hours constitutes a year's work; the rest made up for it in some way or other, or were among the four persons elected in the "distinguished persons" category. The median rejected candidate, in contrast, had only 21 hours of graduate work in psychology. The 32 rejected applicants with over 30 semester hours of psychology were unemployed or did not have enough experience to qualify for membership.

TABLE 4

Years when applicants for APA membership received their bachelors degrees

Date of Degree	Accepted ¹	Rejected
1945-.....	63	37
1940-44.....	26	19
1935-39.....	15	25
1930-34.....	13	23
1925-29.....	3	8
Before 1925.....	5	19
None or unknown.....	6	6
Total.....	131	137
Median year.....	1945	1938

¹ Sample of 131 of the 656 accepted applicants.

Table 4 shows a tabulation of when the applicants received their bachelors degrees. There seems to be a real difference between the two groups. The median elected candidate finished his undergraduate work in 1945; the median rejected applicant, in 1938.

We also tabulated some information about the members who endorsed the accepted and rejected applicants, checking to determine whether they were Fellows or Associates, how long they had been in the APA, in what capacity they had known the applicant, and how long they had known him. Successful applicants were more likely than rejected ones to have secured endorsements from Fellows of the APA (60 per cent to 42 per cent). Rejected applicants were more likely to be endorsed by Associates who had been members for less than five years (25 per cent to 14 per cent). Elected applicants were endorsed by their teachers more frequently than were rejected ones (64 per cent to 46

per cent). Rejected applicants were three times as frequently endorsed by present colleagues as were accepted ones (36 per cent to 13 per cent).

In summary, the elected applicant is usually a relatively young person still taking graduate work or having recently finished it. He usually does not have a doctor's degree, but is reasonably likely to get it later. If he is employed, it may be in any psychological field, but is most likely to be in teaching, counseling, or clinical work. He is most likely to be endorsed by Fellows of the APA who are or have been his teachers.

The rejected applicant is, on the average, several years older. He is much less likely to be in graduate school and less likely ever to get a PhD in psychology. He may be employed in any field of psychology but is more likely to be in counseling than in anything else. In many cases his graduate work was taken with a major in some field other than psychology. Although he has subsequently gotten into work which he considers psychological, he did not have enough graduate work in psychology to qualify him for membership. Nevertheless, two of his teachers or colleagues endorsed him as unqualifiedly as if he met the Association's requirements.

Minimum requirements for Associate membership are (1) either two years of graduate work in psychology or one year of graduate work and one year of professional experience in psychology, and (2) employment in graduate study or a position which is primarily psychological in nature. Those are the requirements. It is the responsibility of the Board of Directors to interpret them. Transcripts, information from the applicant himself and from his endorsers, and sometimes information from others all help. But still there are problems—problems which have been increasing as the growing prestige of the APA has made membership more desirable to the marginal and unqualified as well as to the qualified. The data given above indicate that the two chief differences between those candidates that the Board has accepted and those they have rejected are that the accepted ones (1) have taken a larger amount of graduate work in psychology, and (2) show more evidence of having thought of themselves as psychologists—by applying earlier in their careers, by taking their graduate work primarily in psychology rather than in another field, and by expecting to continue their psychological education after they become APA members.—DAEL WOLFLE

Psychological Notes and News

Louis Granich died January 4, 1950, at the age of forty. His death resulted from an automobile accident.

Orman McDonald died September 11, 1949. He became an Associate in 1948.

Grace M. Fernald, member of the APA since 1907, died at the age of seventy. She was noted for her success in the field of remedial reading.

Anna Freud of London will speak at Clark University on Wednesday, April 20, at 8 P.M., before the meeting of the Eastern Psychological Association begins. Her address is part of Clark University's 60th anniversary program.

Georg von Békésy of the Harvard Psycho-Acoustic Laboratory has been named the first recipient of the Shambaugh Prize recently established by the family of the late George E. Shambaugh, noted otologist.

The prize is awarded biennially for outstanding research in hearing. The recipient is chosen by the Collegium Oto-Rhino-Laryngologicum, Amicitiae Sacrum.

S. Smith Stevens was appointed chairman of the Division of Anthropology and Psychology of the National Research Council, effective December 15, 1949.

Seymour G. Klebanoff is now serving as director of psychological services at the North Shore Health Resort in Winnetka, Illinois, and is also a lecturer at Northwestern University.

Thomas D. Womble has accepted a position as vocational counselor at the Guidance Center of the University of Miami, Coral Gables, Florida.

Hulsey Cason has resumed the duties of professor of psychology at the University of Miami, Coral Gables, after a temporary assignment in the Clinical Psychology Branch of the Army.

William H. Hooper has accepted a position as clinical psychologist with the Topeka State Hos-

pital at Topeka, Kansas. He was formerly personal counselor with the VA Regional Office at Cheyenne, Wyoming.

The University of Hawaii has recently appointed **Colin J. Herrick** director of the Psychological Clinic; he has been on leave, teaching at the University of Rochester, during the first semester. **T. W. Forbes** has been granted leave for the second semester to accept a visiting associate professorship in engineering and psychology at the University of California, Los Angeles, in order to conduct research at the Institute of Transportation and Traffic Engineering there. **Joseph E. Morsh**, formerly of the University of British Columbia, joined the staff as associate professor in September, and **Jean Devening** has been associate psychologist on the staff of the Psychological Clinic for the first semester.

The University of Florida announces that **John F. Dashiell** will be a member of the staff of the department of psychology for the spring semester, giving courses in learning and the history of psychology.

Samuel J. Beck gave a lecture series on "The Rorschach Test in Conflict Conditions" during January.

James C. Dixon, formerly of Emory, and **E. Porter Horne**, formerly of Florida State University, joined the staff last September at the rank of associate professor.

The department of psychology at the University of Oklahoma was last year authorized to offer instruction leading to the PhD degree. This work is offered in the two areas of clinical and experimental-theoretical psychology.

New members of the department for 1949-50 include two at the rank of professor, **Muzafer Sherif** and **Percy T. Teska**, the latter also a member of the faculty of the College of Education; and **George H. Guthrey**, at the rank of special instructor, as psychiatric consultant to the Psychological Service Center.

John H. Rohrer rejoined the staff after a post-doctoral fellowship at Yale during 1949-50. He

was appointed assistant dean of the College of Arts and Sciences last September.

The remaining members of the 1949-50 staff are: M. O. Wilson, chairman of the department; Donald H. Dietrich and L. B. Hoisington, at the rank of professor; W. B. Lemmon, director of the Psychological Service Center and Paul MacMinn, dean of students, at the rank of associate professor; Joseph M. Latimer, director of training in personnel work, Carl R. Oldroyd, and G. Raymond Stone, at the rank of assistant professor; and Hugh M. Galbraith, psychiatric consultant to the Psychological Service Center and practicing psychiatrist, at the rank of special instructor.

Vanderbilt University now has available four fields of specialization in the graduate training program of the department of psychology. Following a one- to two-year core curriculum (depending on previous training), doctoral students select a field of professional specialization for emphasis during the terminal and research phases of training. These areas are: teaching and research in general psychology; clinical; counseling and guidance; and industrial. A terminal MA is offered as a technician degree following a four- to six-quarter period of instruction and practicum work.

Rohrer, Hibler & Replogle announce the appointment of Robert C. Topper to their Dallas, Texas staff and of Harry L. Coderre to the staff of their Los Angeles office.

Conference on behavior theory. The Social Science Research Council has received from the Carnegie Corporation funds to enable seven psychologists to work cooperatively on problems of behavior theory. Initially, the group will consider certain problems of methodology and content of current theories. Members of the group are William K. Estes and W. S. Verplanck, Indiana University; Sigmund Koch, Duke University; Kenneth MacCorquodale and Paul E. Meehl, University of Minnesota, and Conrad G. Mueller and W. N. Schoenfeld, Columbia University. The conference will be held at Dartmouth College from June 19 to August 18, 1950.

The International Society of Criminology is in process of being established, and anyone interested in it should write to M. Piprot d'Alleaume,

Secretary General, c/o Mr. L. du Noüy, Room J-201, United Nations, Lake Success, New York.

The Connecticut Valley Association of Psychologists held its final meeting for the year 1949 at Hartford on December 10th. Katherine E. Baker of Connecticut College for Women, New London, talked on "An application of generalization concepts to transfer of training: a partial report on Connecticut College's Navy contract for the study of motor skill training problems."

The history of the Association from its organization in 1932 was reviewed by Marion A. Bills for the purpose of defining its future aims and its relationship to the State Society, the APA and the EPA.

Newly elected officers are Wilbert S. Ray, president; Jacob Levine, vice-president; Edward S. Kip, secretary-treasurer; Donald Peterson, chairman of the Program Committee, and Hermann O. Schmidt, chairman of the Membership Committee.

The 1950 NVGA Directory of Vocational Counseling Agencies was published on January 1, 1950. This is a listing of about 130 counseling agencies which have been carefully investigated by the National Vocational Guidance Association and found to conform to satisfactory professional standards. Considerable information is provided about each agency, including name, address, sponsorship, clientele, fees, additional services provided, and professional qualifications of the director and staff. Each agency filled out a detailed questionnaire, supplied satisfactory references, was visited in person by an investigating committee, and was reviewed carefully by a national committee of NVGA. It will interest psychologists to know that of the eight members of this committee, three are Fellows of Division 12 and five are Fellows of Division 17; five are diplomates of ABEPP. The Directory costs \$1.00 and may be obtained from the Ethical Practices Committee, Box 64, Washington University, St. Louis 5, Missouri.

Where do departments of psychology buy their apparatus? This question is one of interest to an informal committee of experimentalists. They will distribute what information they obtain to the contributors thereof. Please write to the secretary, Dr. Benton J. Underwood, Department of Psychology, Northwestern University, Evanston, Illinois.

The Division of Clinical and Abnormal Psychology has elected Robert C. Challman Division Representative to the APA Council.

The APA Committee on Intraprofessional Relationships in Psychology, which was established last September by the Council of Representatives, has now been appointed by President J. P. Guilford. Carroll L. Shartle is the chairman. Other members are Edward S. Bordin, Richard S. Crutchfield, Harold M. Hildreth, William McGehee, James G. Miller, Milton A. Saffir, and E. G. Williamson.

College enrollment has more than doubled in the last 20 years and has quadrupled in the last 30 years. The number of students enrolled last September was 2,456,841, about 50,000 more than the year before. Previous expectations that there would be a rapid decrease in enrollment as veterans used up their GI allowances should now be changed.

APA growth. The APA office has wondered, as we lived through a period of rapid expansion in psychology, when the first faint indication of a change in rate of growth would occur. Three somewhat stationary figures can now be reported: the "outside" subscriptions, to libraries and other institutions, number about the same as a year ago; the income from January advertisements was slightly less than a year ago; and the income from the sale of back issues is falling under a year ago. The Association, in terms of members, is growing so rapidly that it is difficult to know the meaning of these changes, but we present them as the proverbial "straws in the wind."

Research in the field of group psychotherapy is one of the areas supported by funds from the National Institutes of Health of the Public Health Service. The committee in charge of reviewing applications for funds would like to emphasize the need for carefully controlled, well designed investigations in this field.

SSRC fellowships and grants for 1950. All fellowships offered by the Council are for advanced predoctoral or postdoctoral training, which may include experience in research under appropriate guidance. Fellowships are not awarded to support the

execution of research projects, but to broaden the fellows' grasp of research methods and to provide opportunities for direct study of empirical data. Fellowships are available to students only after they have reached an advanced state of graduate training.

Grants-in-aid and travel grants for area research are restricted to mature investigators of established competence; they are not available to candidates for academic degrees.

Area fellowships and travel grants are offered to meet the training needs of persons who are or who propose to become specialists on the contemporary culture of certain foreign areas.

Fellowships and grants are restricted to permanent residents of the United States and Canada.

No funds are available for subsidizing the publication of books and articles.

Further details may be obtained by writing SSRC. The initial letter should indicate age, academic status, vocational aims, and the type of assistance desired. Address the Social Science Research Council, 726 Jackson Place N.W., Washington 6, D. C.

Research assistantship in personnel psychology, for 1950-51; application, including application for admission to graduate work at the University of Pittsburgh, must be complete by April 1; either sex, must have AB by June. Salary, \$2,000, for full-time work with the American Institute for Research in the summer and half-time work (20 hours per week) during the academic year. For further information write to the American Institute for Research, 413 Morewood Avenue, Pittsburgh 13, Pennsylvania.

Research psychologist, rank GS-9 (\$4,600), either sex, to be responsible for a project on basic research in vision and perception, and also act as consultant on problems of color. Laboratory experience in visual research is a required qualification. The position is now open, and a "temporary indefinite" Civil Service appointment has been authorized in order to fill it sooner. Permanent status can be obtained later (see pages 87-88, March 1949 *Amer. Psychologist*). Apply to Mr. Adolph H. Humphreys, Camouflage Branch, Engineer Research and Development Laboratory, Fort Belvoir, Virginia.

Internship, beginning July 1, 1950, for a 12-month appointment; probably either sex, MA in clinical psychology required. Stipend, \$2,465 per year for a 48-hour week. Arrangements can be made for living quarters on the grounds. Address applications to Miss Beatrice Mosner, Clinical Psychologist, Wayne County General Hospital, Eloise, Michigan.

Teaching Associates, University of Washington, beginning with fall term. Associates teach 10 hours per week in the introductory course, and receive a stipend of \$1,500 with remission of tuition fees. PhD candidacy required. Further information and application forms may be obtained by writing the Department of Psychology, University of Washington, Seattle 5, Washington.

Graduate fellowships at the Washington Public Opinion Laboratory. The Washington Public Opinion Laboratory, in the University of Washington and State College of Washington, has established a series of bulletins reporting their state-wide polls and methodological studies. These reports are obtainable upon request without charge.

The number of graduate fellowships at either the University in Seattle or the State College in Pullman has been increased to ten. The fellowships normally lead to the PhD degree in the field of public opinion research. They carry a stipend of \$1,000 to \$1,200 for the nine months of the academic year. The student normally puts in half his time on courses and half his time on research work in the Laboratory. When he has developed sufficient competence, some poll of the Laboratory is usually combined with his PhD thesis, so that the student gets the facilities of the Laboratory, with its state-wide organization of interviewers, who help him gather his data. The Laboratory in return gets one or two years' work on a single survey. Applications for fellowships beginning October, 1950 should be submitted before the first of March. Apply to Office of the University Director, 301 Thomson Hall, University of Washington, Seattle 5, Washington.

Four teaching assistantships, West Virginia University, for graduate students in psychology. Stipend, \$800-\$1,000, plus exemption of tuition fees. Apply March 15 to the chairman, Dr. Quin F. Curtis, Department of Philosophy and Psychol-

ogy, West Virginia University, Morgantown, West Virginia.

Two junior psychologists, evidently wanted as soon as possible, evidently either sex, AB required with many specific requirements of clinical courses and intern training in clinical; must be resident for two years in the State of Iowa. Salary, \$230-\$270 per month. Positions are open in the Iowa Department of Social Welfare, but applications should be addressed to the Iowa Merit System Council, Insurance Exchange Building, Des Moines 9, Iowa.

Psychologist II. Applications will be received until further notice by the County Civil Service of San Diego, Room 402, Civic Center, San Diego 1, California. Requirements, women, age 23-55, citizenship in U.S., AB in clinical psychology, two courses in Rorschach; experience, two years of paid clinical, or one year plus one year of graduate study in clinical psychology. In addition, applicant must be able to qualify for California motor vehicle operators' license. With the application for examination each candidate must file in duplicate a typewritten statement describing her training and experience in the field of clinical psychology, with particular emphasis on her grounding in the use of the Rorschach test.

Junior and senior clinical psychologists for the State of California. Final date for filing applications February 18, 1950; examination date March 11, 1950. Application blanks (Form 678) may be obtained from the State Personnel Board, 1015 L Street, Sacramento, California, or from the Department of Employment offices. California residence is not required, but all applicants must be U. S. citizens. Examinations will be held in Sacramento, San Francisco, Los Angeles, and such other places in California and other states as the numbers of candidates warrant and conditions permit. Requirements for junior psychologist are equivalent to an MA in clinical psychology and six months' experience of field work in clinical psychology under supervision in an organized psychological clinic. Salary range, \$268-\$325. Requirements for senior psychologist are equivalent to an MA with major work in clinical psychology and two years of full-time paid experience in the practice of clinical psychology. (Possession of a PhD with major work in

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Assistant professor of psychology. Applications are invited for this post at Queen's University, Kingston, Ontario. Salary, \$3,000-\$3,700, according to qualifications. The teaching year lasts for less than eight months. Preference will be given to a candidate whose interests and training qualify him to teach experimental psychology and to develop experimental research.

Professor to head psychology department, September 1950; PhD and experience in teaching required. Salary and rank dependent upon training and experience. Apply to Dean W. C. Nystrom, Dean of the College, Wittenberg College, Springfield, Ohio.

Research psychologist positions under U. S. Civil Service. Civil Service positions are continuously open for the *Research Psychologist* series in the higher grades (GS-11 to GS-14). Psychologists in the field of experimental, and also in the field of experimental-social, and graduate students in the same fields who are about to complete their PhD's, should apply now to the U. S. Civil Service Commission for the proper forms if they want to be considered for such positions during the coming academic year.¹

About 95 per cent of the applications for the *Research Psychologist* positions are from persons who are not at all qualified, such as salesmen who apply because they "know how to deal with people." It takes some time to sift through the applications and find the five per cent who have some legitimate claim to the name of "research psychologist."

Civil Service processes were described in greater detail in the March 1949 issue of the *American Psychologist*, pages 87-88.

¹ While the above account is unofficial, it is based on information believed to be accurate.

Convention Calendar

AMERICAN PSYCHOLOGICAL ASSOCIATION

September 4-9, 1950; Pennsylvania State College

For information write to:

Dr. Dael Wolffe

1515 Massachusetts Avenue N.W.

Washington 5, D. C.

EASTERN PSYCHOLOGICAL ASSOCIATION

April 21-22, 1950; Worcester, Massachusetts

For information write to:

Dr. Charles N. Cofer

Department of Psychology

University of Maryland

College Park, Maryland

MIDWESTERN PSYCHOLOGICAL ASSOCIATION

May 5-6, 1950; Detroit, Michigan

For information write to:

Dr. David A. Grant

Department of Psychology

University of Wisconsin

Madison, Wisconsin

ROCKY MOUNTAIN BRANCH OF APA

May 14-15, 1950; Colorado A&M College,
Fort Collins, Colorado

For information write to:

Dr. Lawrence S. Rogers

Veterans Administration Mental Hygiene Clinic

Denver, Colorado

SOUTHERN SOCIETY FOR PHILOSOPHY AND PSYCHOLOGY

April 7-8, 1950; Vanderbilt University,
Nashville, Tennessee

For information write to:

Dr. John B. Wolfe

Department of Psychology

University of Mississippi

University, Mississippi

COUNCIL OF GUIDANCE AND PERSONNEL ASSOCIATIONS

March 27-30, 1950; Atlantic City, New Jersey

For information write to:

Dr. Clifford P. Froehlich

Specialist for Training Guidance Personnel

Federal Security Agency,

Office of Education,

Washington 25, D. C.

SOCIETY OF EXPERIMENTAL PSYCHOLOGISTS

April 14-15, 1950; University of Rochester

For information write to:

Dr. Lyle H. Lanier

New York University

New York 53, New York

AMERICAN ASSOCIATION ON MENTAL DEFICIENCY

May 17-20, 1950; Columbus, Ohio

For information write to:

Dr. L. N. Yepsen

Washington Crossing, New Jersey

WESTERN PSYCHOLOGICAL ASSOCIATION

April 28-29, 1950; Santa Barbara College

For information write to:

Dr. M. Bruce Fisher

Fresno State College

Fresno 4, California

CANADIAN PSYCHOLOGICAL ASSOCIATION

May 18-20, 1950; Royal York Hotel, Toronto,
Canada

For information write to:

Mr. H. O. Steer

100 St. George Street

Toronto, Canada

MEMBERSHIP RULES IN THE AMERICAN PSYCHOLOGICAL ASSOCIATION

There are three classes of membership in the American Psychological Association: Associate, Fellow, and Life Member.

Associates

The largest class of membership is *Associate*. In order to qualify as an Associate an applicant must meet one of three sets of requirements:

1. He must have a doctor's degree based in part upon a psychological dissertation and conferred by a graduate school of recognized standing; *or*
2. He must have completed two years of graduate work in psychology at a recognized graduate school and be devoting full time to work or graduate study that is primarily psychological in character; *or*
3. He must have completed one year of graduate study plus one year of professional work in psychology and be devoting full time to work or graduate study that is primarily psychological in character.

Distinguished persons in related sciences, education, or other fields outside of psychology sometimes apply for membership in the Association because of their interest in allied research problems. When the Board of Directors considers it in the interests of the Association to elect such distinguished persons, the requirements stated above may be waived.

Annual dues for Associates are now \$12.50.

Applicants must have their applications complete by September 15. New Associates are elected in the fall and their membership is dated as of the next year. Journals due Associates begin with the January issues; they receive the *American Psychologist*, the *Psychological Abstracts*, the *Psychological Bulletin*, and the *Directory*.

Fellows

Properly qualified Associate members may, upon nomination by one of the Divisions and election by the Council of Representatives, become *Fellows* of the American Psychological Association. Fellows must previously have been Associates. They must have a doctor's degree and at least five years of acceptable professional experience beyond that degree. They must be primarily engaged in the advancement of psychology as a science and a profession.

Annual dues for Fellows are now \$17.50. Fellows receive the same journals as Associates.

In the American Psychological Association, no one is made a Fellow except at his own request.

Life Members

Life Membership is open to members who have reached the age of 65 and who have been members for twenty years. They are exempt from dues, and receive the *American Psychologist* and the *Directory*.

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